VIRGINIA WILDLIFE

APRIL, 1958

VOLUME XIX *Price 20 cents* NUMBER 4

An opening day big one that didn't get away

VIRGINIA WILDLIFE

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond 13, Virginia

A Monthly Magazine Dedicated to the Conservation, Restoration, and Wise Use of Virginia's Wildlife and Related Natural Resources, and to the Betterment of Hunting, Fishing and Outdoor Recreation in Virginia

COMMONWEALTH OF VIRGINIA

J. LINDSAY ALMOND, JR., Governor

Commission of Game and Inland Fisheries

COMMISSIONERS

BEVERLEY W. STRAS, JR., *Chairman, Tazewell*

J. C. AARON ..... Martinsville
H. G. BAUSERMAN ..... Arlington
T. G. HERRING ..... Dayton
J. CARGILL JOHNSON ..... Warwick City
DR. E. C. NETTLES ..... Wakefield
DR. W. B. RAINS ..... Warsaw
I. T. WALKE, JR. ..... Norfolk
T. D. WATKINS ..... Midlothian
HOLMAN WILLIS, JR., Roanoke

I. T. QUINN
Executive Director

EVELYN P. RUEGER
Assistant Executive Director

DIVISION CHIEFS

CHESTER F. PHELPS ..... *Game*
G. W. BULLER ..... *Fish*
LILLIAN B. LAYNE ..... *Fiscal*
J. J. SHOMON ..... *Education*
WEBB MIDYETTE ..... *Law Enforcement*

VOLUME XIX APRIL, 1958 No. 4

In This Issue

	PAGE
Editorial	4
Fishing in Virginia's Tidewater	5
More Wildlife Through the Soil Bank	9
Trouting in Virginia with Mr. Pipes	10
Conservationgram	13
Virginia Freshwater Game Fishes (Pictorial)	14
The Game Warden Comes of Age	16
A New Nature Trail for Stony Man	18
Commission to Open Two Completed Trout Lakes	20
Attention Supervisors, Principals, and Teachers	22
Field Force Notes	23
The Drumming Log	24
Wildlife Questions and Answers	26
What is Your Wildlife "I. Q."?	27
Game Warden Subscription Drive	28

Cover

The male bobolink is a devoted parent and helps with the feeding chores after the eggs hatch. This beautiful bird is seldom seen in Virginia except during the spring and fall when it is migrating.

National Audubon Society Photo by Eliot F. Porter

PUBLICATION OFFICE: Commission of Game and Inland Fisheries, 7 North Second Street, Richmond 13, Virginia

J. J. SHOMON, *Editor*
D. E. CANTNER, *Associate Editor*
L. G. KESTELOO, *Photography*
FLORENCE BLANKENSHIP, *Circulation*

SUBSCRIPTIONS: One year, $1.00; two years, $1.50; three years, $2.00. Remittances by check or money order to be made payable to the Treasurer of Virginia. Local game wardens will accept subscriptions or they may be forwarded direct to Commission of Game and Inland Fisheries, 7 North Second Street, Richmond 13, Virginia.

VIRGINIA WILDLIFE is published monthly at Richmond 13, Virginia by the Commission of Game and Inland Fisheries, 7 North Second Street. All magazine subscriptions, change of address notices, and inquiries should be sent to the Commission, P. O. Box 1642, Richmond, Virginia. The editorial office gratefully receives for publication news items, articles, photographs, and sketches, of good quality, and other materials which deal with the wise use and management and study of Virginia's inter-related, renewable resources: soils, water, forests and wildlife. Because of pressure of editorial duties, however, the Commission cannot be held responsible for unsolicited manuscripts and illustrative material. Since wildlife is a beneficiary of the work done by state and federal land-use agencies in Virginia, editorial policy provides for full recognition of their accomplishments and solicitations of their contributions. Credit is given on material published. Permission to reprint is granted provided proper credit is given the Virginia Commission of Game and Inland Fisheries and VIRGINIA WILDLIFE and proper clearances are made with authors, photographers, artists and publishers.

Second-class mail privileges authorized at Richmond, Va. Additional entry Baltimore, Md., July 1, 1956.

NATURAL SPACE—

The Mounting Crisis Between Bulldozers and Ladyslippers

UNLESS men of leadership recognize the growing importance of natural space on earth, our frantic race to the moon may be of little use. Today America is faced with one of the most serious domestic crises in its history—the problem of skyrocketing population and urbanization and the swallowing up of the natural countryside.

Year by year, month by month, day by day, the engulfment of woods and wet areas and beach country continues. Each year, each month, each day, the stealing fingers of encroachment are taking away forests, meadows, marshes, scenic areas, homes of wildlife—all *natural* areas, some with great potential recreational value. Experts estimate that each year we are losing 1,100,000 acres of land to urban development, subdivisions, highways, shopping centers, industrial plants. In all great metropolitan centers, cities are losing their natural "wild" places as one urban agglomeration after another merges with development centers of the next. Natural spots of hinterland, scenic water areas, picturesque hills and dales, haunting wild beaches with their sanderlings and skimmers, are swiftly passing by the board. More and more, families must travel greater distances to find a bit of shade and solace. More and more the outdoorsman must drive longer to find a place to pitch a tent or locate a bit of natural water to wet a line.

Nothing is more heart-rending to the conservationist these days than to see parcel after parcel of natural space sacrificed completely in a passion for urban development and to see little or nothing being done to preserve our few remaining wild places.

Last summer I had a good opportunity to see what is happening to America—your America, our America, the land of the free and the home of the brave, the land our forefathers fought so hard to establish as a great nation and passed on to us with the simple solemn admonition: *take care of America lest you sell our heritage down the river.* Having covered some 33,000 miles of the continent by air, rail, automobile and boat, I can say with deepest gravity and humility that we're tearing down the face of America at a shocking rate. A few examples will suffice.

Here is a metropolitan area—some 300,000 in population—and growing like wildfire. A close look around shows that little is being done to provide additional public parks, parkways and recreation areas or to save its disappearing surrounding scenic areas. Juvenile crime is increasing, and nothing is done for the wholesome recreation of young people. Instead, comes the hue and the cry: "What we need is more industry."

Granted, industry is needed to keep our economy going but the rational man asks: Is it necessary to sacrifice everything for the sake of development?

Here is another section of land, near a city—72 acres to be exact. It is woodland and farm country. It has been lovely hinterland for centuries. Its woods and ladyslippers and creatures have been wild for eons of time. Sure, when the white man came he cleared some of the land but he saved half the woods, kept a small marsh intact for muskrats and wood ducks and let the ladyslippers grow. Fine land, rolling, airy, beautiful, it would have made a lovely park someday for the city and its suburban community. But no. Economics decreed it to be sold for $2000 an acre and turned into home development. Already the bulldozers are tearing out the trees, leveling the hillocks and scooping out the last of the springs and meadows. Not one pine will be left and not one root of hepatica will remain under the cool blanket of leaves when the developers get through.

In the United States proper, there is a land surface of 2,973,700 square miles. Three hundred years ago most of this area was wild land, with great stands of oaks, pines, hemlocks, and with sparkling watercourses and land largely untouched by man.

Today the wild country has shrunk to approximately two and two-tenths percent of the total land area. The country's remaining wilderness lands would fit an area the size of Georgia. They may shrink still further.

In a real sense, America's wild land is important. For the immigrant who arrived yesterday and for the fourth generation "American," it is a symbol of the nation. It represents a pioneer heritage in which the individual, not machines and things, is valued.

Every 12 seconds our population increases by one person. Each year there are increasing demands on our natural resources. More persons seek recreation; greater demands are necessitated on water, wildlife and minerals. In the face of our increasing population and the growing mechanization of so much of our activity, our only democratic hope for success in preserving our wild lands is in a policy of deliberately setting aside such areas for preservation and then maintaining the integrity of our designation.

What is needed everywhere in America is an immediate and long-range program of action to save our remaining wild lands—save the public lands we now have, acquire new public recreation areas wherever they can be found and, especially, to set aside family-size parks and recreation areas outside of mushrooming metropolitan centers.

Unless we are deliberate in saving some of our natural environment on earth—an environment we know to be salubrious to man—our race to the lifeless moon with its extremes in temperatures surely will be of little avail. If a man can't make a good home on the planet earth, which has proved to sustain life for eons of time, attempting to settle a bleak no man's land in outer space seems little short of absurd.—J.J.S.

Game Commission Photo

Tidewater offers some of the best largemouth bass fishing on the Atlantic seaboard. Fishing success is usually high during the spring and fall months.

Fishing in Virginia's Tidewater

By J. J. SHOMON

Editor, *Virginia Wildlife*

First in a series on where to fish and what to catch in the several geographic regions of the Old Dominion. Next article: "Fishing in Virginia's Piedmont Country."

WHEN Captain Christopher Newport and his intrepid English adventurers set foot on Jamestown Island in 1607, the first meal on land consisted of "fishes from the abundant waters of the new land." So plentiful were fish and other wild foods in Virginia that a permanent English settlement in the New World was made possible. Today, some 350 years later, Virginians are still quietly pursuing their long-established custom of "angling for fish"—only now it is largely a matter of sport. True, a sizable commercial fishery does exist and is part and parcel of the economy of several tidewater counties, but the bulk of the fishing nowadays is *sport fishing* in fresh and salt water.

To the passerby, Virginia's Tidewater is a quiet, restful hinterland, draped with the brown and green of hardwoods and loblolly pine and interlaced with winding rivers and streams and estuaries—all emptying into that biggest saltwater fishing trough in America, Chesapeake Bay.

"But how goes the fishing," the query comes, "and what do you catch? And . . . where do you go and what do you find when you get there?"

To partially answer such queries, a thumbnail sketch of Virginia's fishing by geographic regions has been suggested. This is the first of such sketches. Others on Virginia's Piedmont, the Valley areas, and the mountains will follow.

The accompanying map shows the tidewater country as all of the area east of a great arc beginning with Washington, D. C. and extending south through Rich-

mond and downward to where Greensville County borders North Carolina. It is a land replete with tradition and history and rich in the natural resources of land and water. Sportswise it is as fabulous a fishing area—though this is generally not known—as exists on the entire Atlantic coast.

This tidewater land is both temperate and semi-tropical, hilly and flat, over-populated and wild. In short, it is a land of contrasts, interspersing the old and the new, the exciting and the quiet.

To the bass fisherman, the tidewater country is heaven. To the rockfish enthusiast it is country you "kind of like to keep to yourself." To the saltwater bottom fisherman it is warmth and a quiet fascination with a type of nostalgia that keeps you coming back again and again. To the solitary surfman, it is Cobb and Parramore and Assateague, with their hours of patient waiting and their occasional moments of bursting excitement as a channel bass picks up a baited hook and rushes out to sea.

Fishing enthusiasts, however, should be prepared to endure or counter minor annoyances. Mosquitoes and chiggers can be troublesome at times. Wood ticks have increased alarmingly in recent years and should be guarded against as Virginia has a high incidence of spotted fever. Also, the tidewater woods, in spots, are full of poison ivy. There are copperheads and some cottonmouth moccasins in the Dismal Swamp region of Norfolk County and around Back Bay, but generally the numbers of poisonous snakes are not worrisome.

Best time to fish varies according to fresh and salt species. For largemouth and smallmouth bass, it's the first part of June, July, and September and October; April and early May for shad. Their companions, white perch, bite freely nearly all year. Striped bass or rockfish start their runs in May and hardheads show up in June. These remain until winter. Weakfish or sea trout appear briefly in spring, then are present again from September until November. Channel bass fishing usually is best in May and June. Cobia are summer fish in Chesapeake Bay; they seldom are caught other than in July and August. Marlin and tuna feed in the same months. Mackerel and blues arrive in June.

Tidewater extends up the Potomac to above Washington, and many from the crowded capital and adjacent communities fish the river for shad, perch and rock within sight of the Jefferson Monument. A favorite spot is the "falls" area just up from the capital. They also catch smallmouth and largemouth bass. Farther down, as the river becomes wider and comes more and more under the influence of the tide, hardhead and sea trout come into the picture. Finally in the middle Bay area off the mouth of the Potomac, the angler finds large bluefish, spot and croakers. Below Colonial Beach are nice waters. Salt bays around Gwynn's Island and Mathews provide fishing, and several productive areas are found near Heathsville. The latter town is on Virginia's Wicomico River, and the mouth, which opens on the bay between the Potomac and Rappahannock, is popular.

Tidewater on the Rappahannock extends almost to Fredericksburg, and hardhead, rock, sea trout and other species are caught from around Tappahannock to the bay. The shore is dotted with small towns, Lancaster and Saluda being good points of departure. Piankatank River can be reached from Saluda or Mathews, and Mobjack Bay is accessible from Mathews or Gloucester. Oregon Run is good for bass and pickerel. West Point and Yorktown are on the York River and yield rock, spot, and flounder. Norfolk is a starting point to fish indentations between Hampton Roads and Cape Henry. Virginia Beach is getting more favored by surfcasters seeking channel bass, trout, rock and other shoreward feeders. Ocean pier fishing here and at Ocean View is productive of bottom fish. Lynnhaven Inlet is good for weaks and flounder.

Large Waters

Back Bay, below Princess Anne, is fresh water, the Virginia end of what North Carolina calls Currituck Sound. Here 25,000 acres of locked-up, fresh water provide unique largemouth fishing. Facilities are ample. Spring and fall months are best. Those interested in fishing in this famous water should first make local arrangements at Back Bay itself or through local guides or the county game warden. The Commission's reprint on Back Bay, available for the asking, gives much information on the area and its fishing.

If big lakes are desired, one would not go wrong in trying Lake Prince or Lake Cahoon, in Nansemond County, two beautiful clear-water reservoirs supplying the city of Suffolk with water. Or Lake Smith, in Princess Anne, a lake from which more prize-winning largemouth bass have been taken than any other in the state. Then there is the Lee Hall reservoir of the Newport News waterworks, a beautiful body of water of some 300 acres.

One of the most popular of all bodies of impounded water is Chickahominy Lake, within 35 miles of Richmond. This lake was created when a dam was thrown across the river in 1942. Backed up for several miles this body of still water accommodates hundreds of fishermen, but the fishing seems to become better and better year after year despite the heavy angling pressure.

Another variation in the tastes of fishermen is that some of them prefer to fish flowing water rather than in the ponds and lakes, contending that the fish are more active and fight harder. For these there are plenty of big waters in the many tidal rivers of eastern Virginia. As a rule, however, fishing for such species as bass is not as good in the rivers themselves as in many creeks that flow into them.

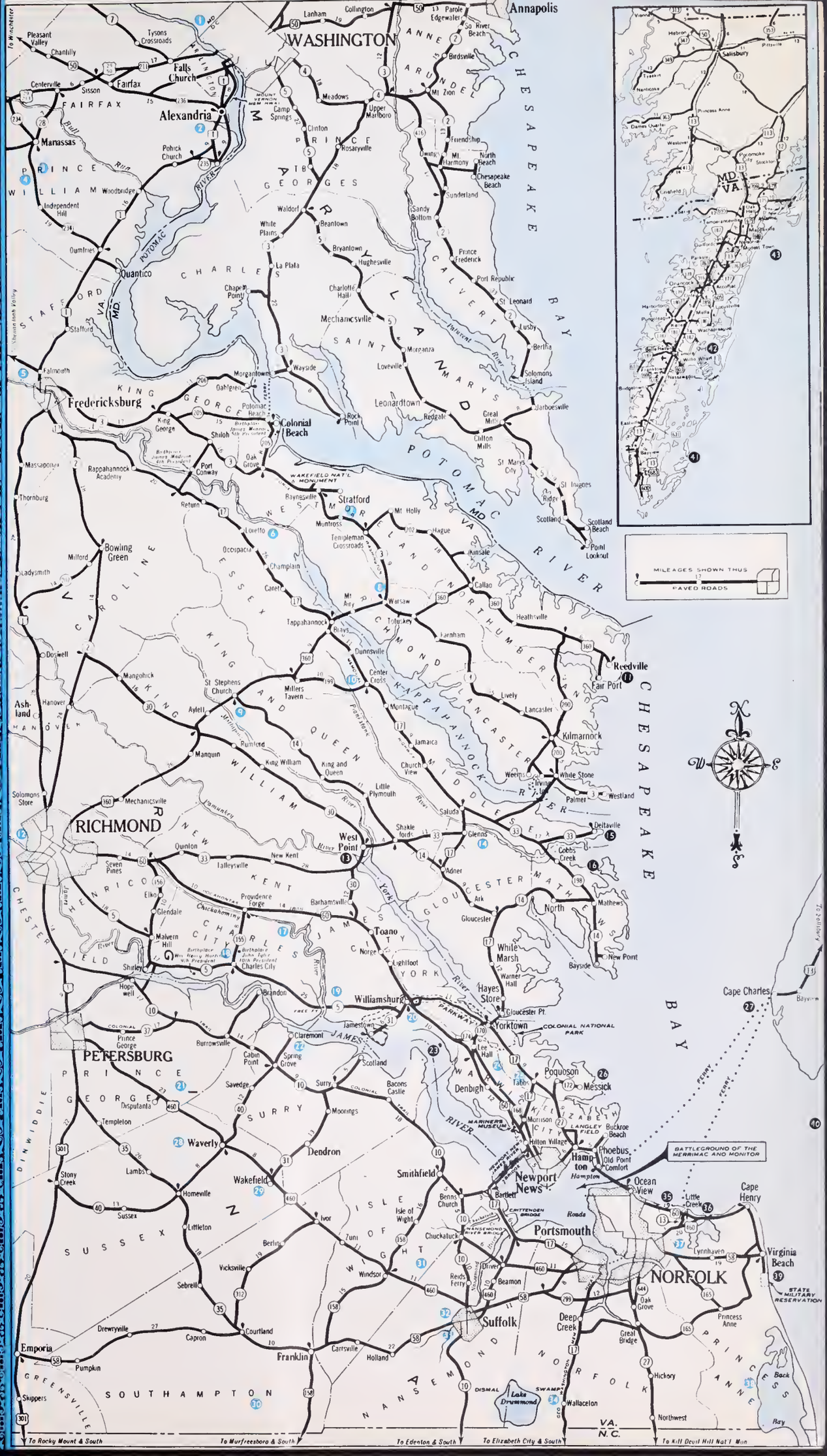
Northwest River, the Blackwater, the Nottoway and the Meherrin, in the southeastern region of the state, all furnish excellent fishing for the warm-water species, as do their many smaller tributaries.

The Chickahominy, a large river itself although a tributary of the James, is a famous bass stream throughout its length. Even at that it is hardly as celebrated as a number of creeks flowing into it such as Diascund, Gordon's, Yarmouth and Morris' creeks. Many launch

LEGEND

B	Bluefish
BD	Black Drum
C	Crappie
CB	Channel Bass
CO	Cobia
CR	Croaker
F	Flounder
H	Herring
LMB	Largemouth Bass
P	Panfish
PKL	Pickerel
R	Rockfish
S	Spot
SH	Shad
SB	Striped Bass
SMB	Smallmouth Bass
W	Weakfish
WM	White Marlin
WP	White Perch

1. FALLS OF THE POTOMAC. SMB, P, SH and H in Season
2. OCCOQUAN AREA. LMB, P, WP, C, H
3. JACKSON LAKE. LMB, C, P
4. RYAN'S DAM. LMB, C, other P
5. FALLS OF THE RAPPAHANNOCK. SMB, P
6. OCCUPACIA CREEK AREA. LMB, PKL, P, SH, H, C
7. CHANDLER'S MILL POND. State-controlled Water. LMB, PKL, P, C
8. CAT POINT CREEK. LMB, PKL, P, SH and H in Season, C
9. UPPER MATTAPONI RIVER. LMB, P, SH in Season, C
10. PISCATAWAY CREEK - DRAGON RUN-PIANKATANK RIVER AREA. LMB, PKL, C and other P, SB, S, H
11. SMITH POINT AREA. SB, W, F, WP, C
12. FALLS OF THE JAMES. Excellent SMB Water, Spring, Summer and Fall Months
13. PAMUNKEY. SB, S, SH, C
14. LOWER PIANKATANK AND TRIBUTARIES. Famous for SB
15. DELTAVILLE AREA. Jump-off Point for Saltwater Species in Chesapeake Bay Region
16. GWYNN'S ISLAND AREA. Hot Spot for SB
17. WALKER'S DAM & CHICKAHOMINY LAKE. Excellent LMB, PKL, C and P Waters; SH Below Dam; Excellent Boat Liveries.
18. HARRISON'S LAKE. LMB, PKL, C, other P
19. LOWER CHICKAHOMINY AREA. LMB Hot Spot, particularly Gordon's Creek Area. Excellent Facilities.
20. POWELL'S LAKE. LMB, PKL, P, C
21. LAKE BINFORD. LMB, C, P
22. SUNKEN MEADOW POND. LMB, PKL, P, C
23. LOWER JAMES RIVER AREA. R
24. LEE HALL RESERVOIR. LMB, PKL, C, P
25. HARWOOD MILL POND. LMB, PKL, C, P
26. MESSICK AREA. Jump-off Point for all Saltwater Species in Chesapeake Bay, incl. CO
27. CAPE CHARLES AREA. Another Good Jump-off Place for Saltwater Species, esp. CO
28. SUSSEX REFUGE. Commission-owned Water. LMB, PKL, P, C
29. AIRFIELD POND. Commission-owned Water. LMB, PKL, P, C
30. WINBORNE MILL POND. Commission-controlled Water. LMB, PKL, P, C
31. LAKE PRINCE. LMB, PKL, P, C, WP
32. LAKE CAHOON. LMB, PKL, P, C, WP
33. LAKE KILBY. LMB, PKL, P, C
34. DISMAL SWAMP CANAL - LAKE DRUMMOND AREA. Excellent C Fishing and P
35. OCEANVIEW AREA. Excellent S Fishing
36. LAKE SMITH. LMB, C, PKL, P, WP
37. LYNNHAVEN INLET. Excellent for W and F
38. BACK BAY AREA. Best LMB Fishing in State: Ex. Facilities
39. VIRGINIA BEACH AREA. S, B, W, Other Saltwater Species; Excellent Piers
40. SMITH ISLAND AREA. BD
41. OYSTER - COBB ISLAND AREA. BD, CB
42. WACHAPREAGUE AREA. CB, BD, W, F
43. CHINCOTEAGUE - ASSATEAGUE AREA. CB, W, WM Offshore



boats near the mouth of the Chickahominy Bridge on Route 5 and explore the fishing for miles above.

The James River in the Norfolk-Jamestown area yields rock and white perch. Giant carp are found in the channels around Hog Island. Burrell's Bay is famous for its rockfishing if you can locate the feeding areas over the oyster beds. Just above Richmond there is fabulous smallmouth water in the seven-mile section called the "falls" of the James.

An increasingly popular sport is wading the small streams where there are sandy and gravelly bottoms and using trout tackle in taking the warm-water fish that abound. Bass, bream, crappie, pickerel and other good game fish in these streams are particularly active in early spring.

In addition to the larger impoundments in the state that are teeming with largemouth bass and other warm-water species, many anglers prefer to fish the small ponds which are numerous throughout tidewater and provide some of the finest bass fishing to be found anywhere. Many of the choicest waters are old millponds that have come down to their owners from Colonial plantation days.

While many of these are in the hands of private individuals or of clubs, there are many throughout the regions that are open to public fishing, where boats may be hired at nominal fees and where the angler can fish to his heart's delight.

In addition to the many public and semi-public ponds available to the tidewater fisherman, the Game Commission has constructed in recent years public ponds in tidewater. They provide hundreds of acres of new fishing water.

Shad and Rockfish

In April, as a rule, the shad runs in the tidal rivers are at their height. Fishing for them with hook and line has become a major sport, although developed only in recent years. Thousands have been caught below the dam in the Chickahominy at Walker's Station and shad fishing has been extended to many of the rivers.

The white shad, prized as a table delicacy both for its meat and its roe, is one of the gamest of all fish in Virginia waters when taken on light casting tackle. The larger the individual fish, the more active it is. These great fish, freshly arrived from the ocean to spawn, are the delight of anglers during their spawning runs.

It has been found that shad will strike readily at small flashing artificial lures, whether cast, trolled or simply allowed to dangle in a current. The strike of a big shad is spectacular, and they are as fast as lightning when hooked, frequently leaping clear of the water when being played.

Shad angling is extending to all of Virginia's tidal rivers, and they are caught wherever there are reasonably dense concentrations. An unexplained fact is that they come into the Meherrin, Nottoway and other more southerly rivers later than in most of the streams of tidewater Virginia where they usually arrive about the middle of March and are plentiful throughout April.

In very recent years angling for hickory shad has grown in popularity. These fish, extremely interesting to catch on light fly or spinning tackle, are in some of the rivers in great numbers and will take the same lures employed in fishing for their larger cousins, the white shad. Their roe is excellent, but the flesh is too bony for table use.

Rockfish, or striped bass, plentiful in Chesapeake Bay and its environs, start early in their movements high up into the tidal rivers and numbers of anglers make a practice of fishing only for rockfish, either with natural baits still fishing, or trolling spoons and feathered lures. Some excellent catches are always made in April.

Eastern Shore

On the eastern side of Chesapeake Bay, known as the Eastern Shore, fishing is enjoyed in Pocomoke Sound, and in open and sheltered areas to Cape Charles. The towns of Cape Charles and Eastville, and a half-dozen other shore villages, care for the needs of visiting fishermen. Oyster is a good jumping off place.

Chincoteague and Wachapreague are the main towns of the oceanside. There's surfcasting water on the islands of Assateague, Cedar, Parramore, and Cobb. The inlets to bays are prime places to fish for blues and mackerel, and the offshore shoals and banks off Wachapreague are fished for marlin and tuna.

There is no lack of places to go when the angler gets the urge to wet a line, and there is every expectancy of success in landing highly preferred game fish whenever weather conditions are suitable to his comfort. Normally there are so many fishing spots close to home that the angler can look up at the sky and decide whether he will go fishing or not.

Use of light casting tackle in comparatively recent years has added tremendously to the pleasure of fishing in tidewater Virginia and has greatly added to the scope of the angler's activities.

Quotes from the Fisherman Magazine

If you're caught among choppy waves in a small boat, make your primary goal reaching calm water before you run out of gasoline, even if it means going farther away from your launching point.

Various sulfa drugs have proved effective in the treatment of fish diseases as have some of the antibiotics.

The spinning rod's limber resilience imposes a relentless pressure that will eventually wear down a fish.

MORE WILDLIFE THROUGH THE SOIL BANK

Why not put poor-paying tilled land into the Soil Bank, increase your income and wildlife, and keep your cropland in good shape?

AN ATTRACTIVE opportunity awaits the sports-minded farmer who will put croplands into the Soil Bank for wildlife. Up to this point few Virginia farmers have taken advantage of this opportunity for additional income—and more game and fish—simply because the soil bank idea sounded too complicated. Actually, the whole thing is not as complicated as you may think.

The Soil Bank Conservation Reserve is a long-range plan for retiring land from the production of surplus crops into conserving uses, and this is the basis for government payments under this program as it relates to wildlife.

In order to take advantage of this opportunity of additional income and an increase in the amount of wildlife, the farmer must sign a contract to retire five or more acres of cropland from crop production for five or more years. Any part of this retired acreage may be devoted to any of the Soil Bank conservation practices including:

1. Wildlife food and cover plantings
2. Marsh development for fur and waterfowl
3. Ponds for fish

Landowners who are sports minded should be interested in the plan because these practices will mean more farm game, better marshlands for ducks and muskrats, and good fishing from your own pond.

1. Wildlife Food and Cover Plantings—The plantings will consist of trees, shrubs, grasses, legumes and other game cover or the encouragement of natural cover plants. The plantings may be in field strips, hedges, borders, clumps or fields of one-quarter acre or larger. The soil bank will pay up to $32 per acre for establishing these plantings.

2. Marsh Development—This consists of the development of shallow water areas to attract waterfowl, fur animals and other wildlife. This includes the building of dikes and dams and the plugging of ditches and canals on cropland in such a way as to control water levels. The soil bank will pay up to 80 percent of the cost of the installation.

3. Fish Ponds—This consists of building fish ponds on cropland. The soil bank will pay up to 80 percent of the cost of the installation.

Land retired from production will earn an annual rental up to $11 per acre for each year of the contract. This is in addition to the establishment payments.

Suppose you are a farmer with 100 acres of land on which you have been raising 50 acres of such crops as corn, small grain, tobacco, cotton, peanuts, soybeans, etc., each year. Then suppose you are getting a little tired of farming or perhaps not making as much out of it as you expected and would like to cut down on the size of your farming operation. The soil bank proposition may be a natural for you. With 50 acres in the soil bank you can realize up to $550 a year for each year of the contract—more than enough for taxes and the kids' clothes. You will have good fishing, good hunting, and have your farm well kept to boot. You can then resume regular farming operations at the old level any time after the contract expires.

Technicians of the Virginia Commission of Game and Inland Fisheries and the Soil Conservation Service will gladly help you plan and apply this program to your farm. Some of the seed may be furnished by the Game Commission.

If you're interested in this program, then you *must get your application in for the soil bank by April 15.* You should contact your local county ASC office (Agriculture Stabilization and Conservation Committee) and tell the representative you're interested. He'll be glad to go over the details with you and help you get into the program with a minimum of trouble.

Trouting in Virginia With Mr. Pipes

By THOMAS M. ARRASMITH, JR., M.D.

IT ISN'T that there is anything condescending about Mr. Pipes, for a more tolerant gentleman you will never meet. It is simply that he was born and reared in the Great Smokies, where it was nature's dictate that, partially at least, and to a degree, one lived by the rod and the gun. And all of the lore that he came by in those high places and far-off times, he has retained in full measure and brought with him from supernal heights to Tidewater. In fact, in matters pertaining to fishing, Mr. Pipes takes up where all others I have known leave off. Mr. Pipes will not tell you this, but he will quietly demonstrate. And by way of further background, it may be said he disapproves of landing nets and looks with distrust upon such effete equipment as creels, his explanation being that they only get in one's way! Later I was to understand why.

It all came about by Mr. Pipes having gone, on three different occasions, to some Valhalla of the Hills and come back looking like the cat that ate the canary with his limit of "mountain" trout every time, to the consternaion of all, and my having had the indiscretion to talk him into taking me along the next time he should go. It was to have been my first, and what easily could have been my last, trout-fishing expedition.

We arose at the hour of three in the morning, met in one of those cock-crow places for a hearty breakfast perched on a stool, and took much delight in observing the manner of gentry abroad in the land at that hour. Certainly there were no Iscariots present for, with the exception of a few sane truck drivers, all were equally as big damned fools as we and quite obviously fishing bound.

To such of you as may be interested in this little odyssey, it is futile to try to describe the beauty of a drive, across the Virginia countryside, of a hundred and forty-odd miles up into the Blue Ridge at this time of day. Particularly in this instance, for I was regaled with fish tales by Mr. Pipes of such native localities as Tye River, Iris Creek, White Top Laurel, Stoney Creek and a "land-locked stream," the name and location of which he refused to divulge.

Three hours after the start we were at the checking-in point. My companion renewed acquaintance with the checker and introduced me. Almost immediately the two of them resumed a discussion which obviously had begun on one of Mr. Pipes' former visits here. It concerned the question of whether or not native rainbow trout could or were propagating in the river higher up. In opposition to unnamed other authorities, self styled or otherwise, these two worthies took the affirmative, asserting that the fish not only could but that they were so doing. Mr. Pipes firmly asserted that it was his avowed intent to bring down from the heights above young trout that day to prove it.

At this juncture there occurred the first of what, to me, turned out to be a series of disquieting episodes. An angler came ambling down the river bank, greeted us and averred he'd been on the water several hours and that it was hopeless. The fish just were not moving. Mr. Pipes simply looked complaisant.

Four miles and more up the winding stream, I had to confess myself no little bit winded. More, which was not apparent at the moment, I was somewhat wobbly on my feet. I sat down. But not Mr. Pipes. He remained most alertly erect and began intently to scrutinize the pool below.

We were on an embankment some twenty feet above the water and about thirty feet from its center. The

stream came plunging down its rocky course beneath the ancient log-span to dapple out into the pool, which seemed to fascinate my companion. Presently he said: "Look, there's a trout in that pool." "Oh! Yes," I said, apathetically, beginning the ordeal of getting up. I wobbled over to him and asked with little or no enthusiasm whatever, "Where?" "Right there," said he, pointing. "Just sight along my arm and follow out to where my finger is pointing." I did so. And he inquired, "Now, don't you see him?" I had to confess that I did not. Then began a most painstaking orientation.

We crawled gingerly out on the log-span, keeping low to prevent our shadows from falling too conspicuously on the water. Arriving at its center, he said, "Now, doctor, do you see that sunken tree limb down there?" I replied that this, at least, I could see. He seemed pleased.

"Now, take that branch running out to the left, with a dead leaf on it. The trout is right under the leaf. Do you see him?" I said that I did not.

Patiently he resumed. "Follow the fly at the end of my leader. I am going to put it right over him." He swung the rod out, let out line until the fly was some inches above the water, positioned it, and said: "Directly under the fly is the fish. Certainly you must see him now?" "Mr. Pipes," I said firmly, "I see no trout!"

Somewhat desperately he arose, so that his shadow fell full length on the rippling water below, extended his arm and said: "He is right under the shadow of my hand!"

"Not a sign," said I, as I seized him by the belt and yanked him back to prevent his falling in. And then, sound churchman though he be, he gave vent to a fervent "DAMN!"

"Mr. Pipes," said I, with no little asperity, "I am beginning to suspect one of two things here. Either your visual acuity is badly at fault, or you are trying to kid me. I don't believe there is a fish in this pool!"

With great hauteur, he gave me a scathing glance and said, "Then watch."

Deftly he dropped the fly upon the surface. As it floated down and approached the sunken tree limb, there was a flash, a strike and a surge; the fish was on, and as quickly gone. Mr. Pipes had struck at the "flash," a matter of technique he explained to me later. But no one, not even Mr. Pipes, could be expected to handle a hooked trout effectively from a bridge eighteen feet above the water.

As we were putting on our boots, Mr. Pipes asked had I observed the fact, when the little trout had risen beneath the bridge, that he had struck with the "flash." A trout, in rising to a dry fly, tends to roll upon its side, quite after the technique of a shark. Not only is his side brighter than his back which, to all practical intents is black, but, given the proper lighting angulations, it reflects the sunlight. There are, therefore, these two cir-

cumstances or conditions which are the genesis of the flash. And these little fish are so fast that, once you miss your timing and do not strike with the flash, it's just too late.

Mr. Pipes casually surveyed the pool, pointed to a spot on the side of the upstream rapid and told me to lay my fly on the water about six to twelve inches above it, for there lay a trout. With as much alacrity as I could muster, I responded. When the fly had floated to the exact spot to which he had pointed, it simply disappeared, simultaneously with which I felt a tug upon it, struck, and the line came away in an altogether creditable downstream backcast!

"Why didn't you strike when you saw him—or did you see him?" he asked.

After what had happened at the bridge, I could only shake my head in embarrassed resignation.

With the next pool, it was different. Mr. Pipes spotted his fish, took my rod from me, casually handed the trout the fly, hooked him, then handed my rod back to me. That was my first trout, though acquired in a somewhat bootleg or ersatz sort of way.

Later in the day and much higher upstream we came to a boulder, about the size of a well-fed rhinoceros, which completely obstructed the stream except for a roaring sluice to either side so powerful and overgrown with bushes that passage by this means was entirely out of the question. "What do we do now?" I gasped beseechingly, hopeful that this was the end of the trail (or trial, as you will) and we could return whence we had come. But there was no end to sorrow here. He said, quite cheerfully, "We simply go over it."

I clawed my way to its crest and bestrode it. As I was ridge-poling my way along its crest, there was a rushing sort of sound and Mr. Pipes vaulted over my left shoulder, lighting on a rock bar to the upstream extremity of the granite mass. The only thing he missed was the execution of an entrechat in midair! Then he floated elfishly around a bend in the stream to the right.

Pausing for a breather, I found that I had the limit of eight trout, some of them so diminutive as to eliminate the possibility of their having been stocked. Mr. Pipes and his friend were right; native rainbows had spawned in the river above. It was here, astride this rock, that I made a momentous, if humiliating, decision for even a fool would have realized that I was through.

Thinking to shorten the distance before again overtaking Mr. Pipes, I stupidly elected to cut across the little headland that separated us.

It was but a few moments after starting upon this ill-starred course before I found myself absolutely immobilized. The line, at the tip of the rod, was entangled in mountain laurel, the fly was inextricably imbedded in the left shoulder of my heavy woolen shirt, while the landing net (permission to bring it having been obtained previously) was fatuously fouled up in rhododendron. It was at this most inauspicious of moments that a cry floated down, beseeching and importunate, from the river above: "Bring the landing net. Bring the net."

I dropped the rod, broke the leader and disentangled the net. Then the following idiotic colloquy ensued, repeated I don't know how many times: "Bring the net." "I'm coming." Until, finally debauching upon the river again, I beheld Mr. Pipes, heavily engaged with and deeply committed to a trout, the like of which had not come our way heretofore. I staggered out and ranged alongside him. He said: "Get out there on the side of the rapid and net him when I bring him round!"

I replied: "Listen, you, it's ten feet out there to the fast water. I do not intend to try to negotiate it, which I know full well I cannot do. I propose to stand right here. You play that fish over to me; I'll net him for you where I stand."

This being no time nor place for argument, he complied with my ultimatum; and, in due course, we had a gorgeous rainbow.

After admiring our catch for a while, Mr. Pipes directed my attention to a wondrous spectacle. Practically crashing down upon me, but completely silent because of the rapids about us, was a waterfall standing 20 feet high, with a smooth and unbroken curtain of water falling into the deep and limpid pool at its base.

My companion asked if I would not go with him to the pool below the falls and sit down while he caught a trout, as he felt most certain he would do. I declined with regret, inasmuch as it would mean walking another thirty-five feet or so. As he had already compromised his principles once in calling on me to net the last trout for him, I suggested he take the net with him. Rather sheepishly, as though ashamed of what he was doing, he silently took it. True to his prediction, and for the first time in his life, he netted a trout only a moment after he arrived at the pool.

Now, I would not have you believing that trout fishing is exclusively a matter of rock and roll in a deluge. Quite the contrary. A hooked trout is a phenomenal thing and a spectacle wonderful to behold. This is, I think, as well exemplified as could be desired by the episode of my netting the fish for Mr. Pipes.

The fish seemed everywhere at once, being now on the near, then on the far side of the stream; yet again, darting along a great and graceful arabesque back into the foaming rapid where he had struck. The speed, the verve and the dash of these little fish, once hooked, is utterly incredible. Until brought to net, it is simply a matter of a rhythmic oscillation of the line, leader and the rod, all over the pool, at frantic tempo and impossible to describe! Schubert at least caught the cadence when he set the sight to music.

When we arrived back at the bridge at last, I was completely fagged, badly dehydrated and believed myself to be hungry. But the thought of food without water was totally repugnant. This made for something of a critical situation, inasmuch as I was mortally certain that, were I to descend the twenty-foot bank to the river for a drink, I'd never make it up again. In desperation I sat down to map out a plan of campaign and surveyed the scene to

(Continued on page 21)

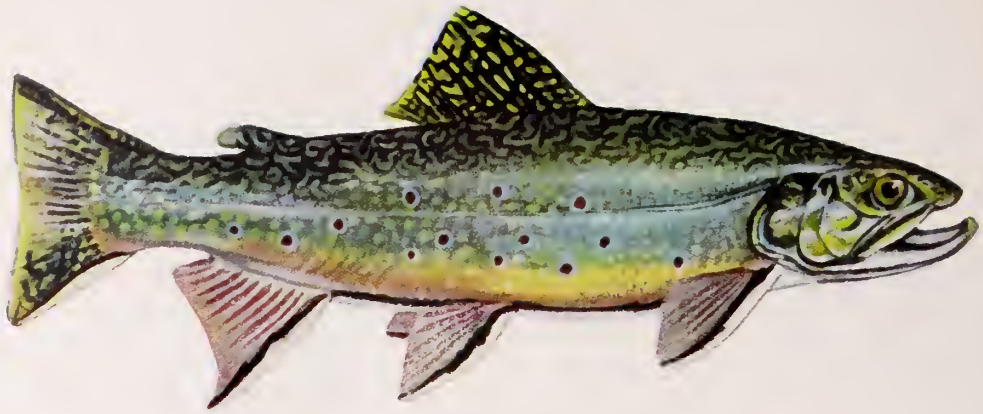
VIRGINIA WILDLIFE

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

ACTION OF THE GENERAL ASSEMBLY. According to executive director I. T. Quinn the following BILLS were enacted by the recent Virginia General Assembly:

HB 88	Relating to exchange of parcel of land in Fauquier County.
HB 108	Placing the eagle on the protected list and giving protection to hawks and owls, except when found doing damage.
HB 138	Prohibiting high powered rifles in Halifax County and King & Queen County.
HB 156	Abolishing licensed waterfowl blinds on James River west of Richmond.
HB 254	Relating to disposition of dog fund in Smyth County.
HB 257	Fixing a $3.00 N-R license fee for shooting on private shooting preserves.
HB 271	Substitute tail for head of animal on which county offers bounty.
HB 272	Authorize killing nuisance beavers.
HB 298	Authorize Clerk of Staunton to issue Augusta Co. H. & F. licenses.
HB 403	Prohibit killing doe deer for 2 years in Appomattox & Buckingham Co's.
HB 404	Prohibit hunting with axe or saw or cut tree without owner's permission.
HB 405	Provide for deer and bear damage stamp in Wise County.
HB 407	Prohibit shooting fish in Scott and Russell Counties. Permit gigging fish under certain conditions.
HB 447	Prohibit hunting waterfowl on Crystal Lake, Linkhorne Bay, Broad Bay and Long Creek in Princess Anne County.
HB 453	Prohibit spotlighting deer.
HB 481	Permit killing deer when damaging crops in Fauquier & Warren Co's.
HB 508	Provide special license ($1.00 for resident, $2.00 for non-resident) to hunt deer, bear & turkey. Resident of County required to obtain license without payment of fee. This special license required in addition to regular hunting license.
HB 510	Authorize the sale of processed game birds and animals when processed and packaged outside of Virginia.
HB 515	Prohibit high powered rifle in Richmond County and Prince William County.
HB 526	Provide trip fishing licenses for residents as well as non-residents fishing in public and private impoundments.
HB 527	Correcting defects in 29-144, 29-162 and 29-163 of the Code with reference to length of deer antlers, and increase of penalties.
HB 528	Provide special licenses for hunting elk.
HB 538	Prohibit high powered rifles for hunting in King George County.
HB 544	Prohibit killing turkey hens in Pittsylvania County.
HB 565	Establish sanctuary in certain areas of Princess Anne County.
HB 591	Create dog warden for Orange County.
HB 614	Hunting season on private shooting preserves fixed by Commission.
HB 615	Relieve Commission from responsibility for supplying seals on packaged game killed on private shooting preserves.
HB 616	Provide for trout licenses in addition to regular fishing licenses.
HB 618	Repeal outside dates for trapping (Sec. 29-146) and authorizing Commission to fix seasons for trapping.
HB 642	Provide Sunday fishing in certain waters in Bland and Giles Counties.
HB 659	Provide for sale of trout for table use raised in private waters within the State, same to be under regulations of Commission.
HB 685	Prohibit killing doe deer in Dinwiddie County for 2 seasons.
SB 66	Changing the boundary line in Nansemond County so as to alter the bear and deer season in a certain area.
SB 129	Amending Sec. 29-169 so as to include a certain area of mountain land in Frederick Co. Relates to trespass.
SB 175	Relating to dog laws statewide. Permissive legislation authorizing any county of State to take over the dog work.
SB 272	Relates to dams and other obstructions in Frederick County.
SB 280	Relating to deer doing damage to fruit trees and crops in Warren Co., the same as already relates to Shenandoah, Isle of Wight, Nansemond, Southampton and Rappahannock Counties.
SB 297	Relates to the carrying of loaded firearms on highways in counties of certain population. Applicable to Caroline Co. only. (Safety legislation)



BROOK TROUT *Salvelinus fontinalis* (Mitchill)

RAINBOW TROUT *Salmo gairdnerii irideus* Richardson

Virginia

Freshwater

Reproduced from
Fishlife in Virgini
twelve popular
Old Dominion. The
grace the center pa

ROCK BASS *Ambloplites rupestris rupestris* (Rafinesque)

PUMPKINSEED *Lepomis gibbosus* (Linnaeus)

BLUEGILL *Lepomis macrochirus macrochirus* Rafinesque

me Fishes

nwater Fishing and

ere are six of the
e fishes of the
er six species will
of the June issue.

CHAIN PICKEREL *Esox niger* LeSueur

Game Commission Photos by Westcloo

The modern game warden is well equipped for his law enforcement duties. Two-way car radios and walkie-talkies greatly facilitate the work of the wardens in apprehending violators. L-R: Julian Hill, Richmond city game warden, W. R. Redford, Jr., Henrico County warden, and the author.

THE GAME WARDEN COMES OF AGE

By HOMER G. BAUSERMAN

THE modern game warden is a different man. Not only has he changed as a law enforcement personality but he has changed as a human being in the eyes of the public.

There was a time when some persons thought of the game warden only as a policeman, dog catcher, part-time official, sometimes in uniform, sometimes out, and a man set out to harass people. All that has changed. The modern wildlife officer has come of age. The negative picture, of course, was never really true although it is admitted that weaknesses did exist and some game wardens carried a poor reputation. It is simply that the situation has changed generally and today's warden has evolved into a new type of law enforcement officer.

There are some who can never see anything good about a game warden. These persons, however, are few. They are the same people, selfish game hogs usually, who can never see anything good in any law enforcement officer, be he sheriff, policeman, detective. Fortunately, however, to the average law-abiding citizen, a law enforcement officer, no matter what his connection, what his uniform, is a public servant, a protector of the peace, the voice of the public speaking through law.

Only Public Servants

What some persons forget is that law officers are only employed to carry out the wishes of the majority. It is actually we the people speaking through the legal processes. Were it not for law and order in our social structure, we would be a nation of bandits. Anarchy would reign. There could be no democracy.

Our way of life tells us that we live by law and order and custom. When our forebears framed the Constitution and established the Bill of Rights, they knew that certain individual freedoms would have to be relinquished in order to achieve the good of society. And so there evolved the principle of absolute rights of individuals. It was agreed, however, that with freedom there would have to be responsibility.

It was agreed, too, that an individual's freedom stops where the next person's nose begins. No man has the

Mr. Bauserman is a member of the Virginia Game Commission serving the Tenth Congressional District. An ardent sportsman and hunter from Arlington, Virginia, he is a former sheriff and past president of the Virginia State Sheriffs' and City Sergeants' Association.

right to yell "fire" in a theater when there is no fire.

The principle of law enforcement was not meant for good people. It was established to protect good people from those few individuals who would take the law into their own hands. It is only cheats who feel the restraint of law. "Restraint," said a keen philosopher once, "is for the savage, the rapacious, the violent; not the just, the gentle, the benevolent."

Today it is a well established principle in natural resources management that sound and effective law enforcement is vital to any program aimed at the public good. At the same time, it is also a well established fact in our democracy that police action alone is not sufficient to stop people from breaking the law. There *must* be also a willingness on the part of citizens and groups to control their personal and special interests in favor of the common good.

And so we have game laws. We have them not so much to tell people where to stop, for this should be dictated by a man's conscience, but to keep selfish people from taking more than their share. By taking more than the law allows they not only endanger the general welfare of wild creatures but approve a practice not favorable to the good of society itself—stealing.

Qualifications Raised

In Virginia the game warden has come a long way. True, the early county game warden left much to be desired, but, for the most part, he was an honorable man, dedicated and often working long hours on little pay.

There were no game management schools in the old days, our knowledge of game was meager, and pay scales were very low. Often a warden was on part-time employment. The state simply lacked sufficient funds to hire full-time wardens in every county. To help the situation, the various county governments agreed to subsidize warden salaries in return for a certain amount of dog law enforcement.

It wasn't a good situation but it was honorable service. Game wardens worked courageously and often under extreme hardships. Long before we had wildlife biologists we had game wardens restocking game, planting fish and encouraging landowners to look out for game. More than 20 years ago the Commission and its wardens released 100 chukars in various parts of the state. Mexican quail were also used experimentally.

Gradually the picture changed. Money and men changed it. Money through higher license fees brought more qualified men, improved efficiency and resulted in better performance. Better training, better leadership, brought on a better organization all around.

In 1950 the Commission finally gave divisional status to law enforcement, with the late M. Wheeler Kesterson at the helm. Up to that point the warden organization was under the supervision of genial M. D. "Mac" Hart, first, last and only executive secretary to the Commission and dedicated public servant since 1916, when the game department was first established.

"Wheeler" Kesterson returned to his beloved southwest Virginia in the spring of 1952 and Webb "Muley" Midyette, experienced supervising game warden and a man of the "ranks," came to Richmond to fill Wheeler's shoes.

Cooperation, Education, and Public Relations

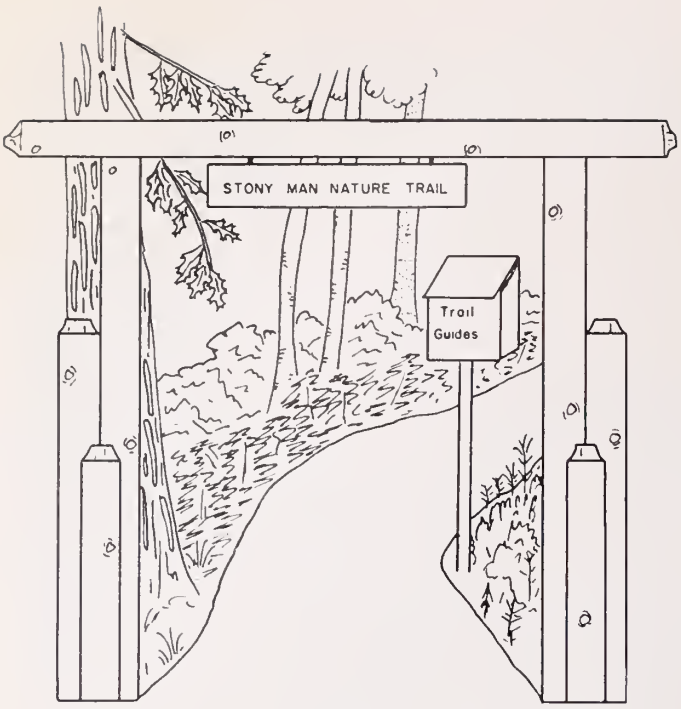
Educational activities were greatly expanded when license revenues were substantially upped in 1948, and wardens pitched in to help with conservation education and public relations.

Today Virginia game wardens form a new force of fine men—dedicated to wildlife conservation and public service. They are better equipped, better paid than ever before—although pay scales are still far from adequate.

The policy of law enforcement is changing too. No longer is the emphasis strictly on game law enforcement —but rather on firmness and fairness with the law and cooperation with public officials and sportsmen's groups.

(Continued on page 21)

The warden's badge is a symbol of dedication to both wildlife conservation and public service. Public relations work constitutes the bulk of the modern warden's activities. To keep abreast of new developments, Virginia game wardens each year gather at Virginia Polytechnic Institute for a short course in public relations problems, law enforcement techniques and other allied subjects of importance in their work.



A New Nature Trail for Stony Man

By GRANT W. SHARPE*

(Photos by the Author)

A GOOD PLACE to stretch your legs next time you are in the Shenandoah National Park is on the new Stony Man Nature Trail. No doubt the old trail to the summit of Stony Man Mountain is familiar to many of you already. A new trail, now separate from the horse trail, has been laid out through the forest. More than just a trail to a high point, the hike to Stony Man's summit offers a rewarding experience through the use of a *new trail guide*.

In the central section of the park near the north entrance to Skyland (at the highest point on the Skyline Drive) you will find the trail's beginning. For almost 3/4 of a mile the trail, laid out in 1956 and 1957 by the park naturalists and maintenance crews, winds gradually uphill for about 300 feet, leading eventually to the upper cliffs of the stony man profile, at an elevation of about 1000 feet above sea level. From here one enjoys a superb view of the Shenandoah Valley.

Allow yourself 1½ to 2 hours for the round trip. Two hours for a 1½-mile walk? I'm not underestimating your ability to hike. But why be in a hurry? There is something to see in every forest, especially in this one. Beyond the sheer joy of getting off into a forest by yourself, you will learn something here that will enhance your future enjoyment of any forest.

Many of us tend to think of a community as a collection of people. The trail takes you deep into another kind of community: the forest community, whose residents are plants and animals. Being on a nature trail you can expect to find many of these residents named. More than just name tags, however, are used to tell you about this forest. Not only is a tagged trail old fashioned but it leaves itself wide open to the practical joker who likes to switch labels around. Another reason for the impracticability of tags is that human history as well as natural history is connected with this trail's story. But now we are getting ahead of ourselves.

At the beginning of the trail you will find a box containing guide booklets. Inside the guide are paragraphs headed by a number, which corresponds to numbered stakes found at places of special interest along the trail.

Appropriately, the first two stations in this predominately oak forest point out the red and white oaks. A brief description of each is followed by a comment or two about the uses of the acorns of the latter species.

A few feet beyond is one of the park's most colorful shrubs, the pinxter bloom azalea which, along with the mountain laurel kalmia seen later on the trail, make up two of Virginia's most colorful shrubs, being rivaled only by the rhododendron further south in the mountains.

Almost immediately the trail leads into one of the park's most impressive areas of 4-foot-tall interrupted fern, named because its fertile, spore-bearing "leaflets" interrupt the sequence of the more numerous sterile "leaflets."

The eastern hophornbeam, once important to the early mountaineers of the Blue Ridge, is seen next. Extremely tough and hard, the wood was once used for such things as kitchen utensils, rake teeth, sled runners, ox yokes, wheel rims, spokes, axles, wagon tongues, whiffletrees, and other agricultural implements. Ironwood, another name for this tree, was also important for fuel, since it burns with the heat of coal.

Snags in the forest community may be compared with grocery stores and apartment houses in the human communities. The old chestnut snags seen along the trail provide food and homes for some park wildlife. Before 1925 nearly every fourth tree in the Blue Ridge Mountains was an American chestnut. The plight of this once impressive species is evident along the trail. Formerly growing in the park to 80 feet tall, it is today but a shrub, the result of a disastrous disease known as the chestnut

*Dr. Sharpe is an assistant professor of forestry in the School of Natural Resources, University of Michigan. During the summers of 1956 and 1957, while at Shenandoah National Park, he laid out the new nature trail and wrote its guide booklet. Dr. and Mrs. Sharpe are the authors of *101 Wildflowers of Shenandoah National Park* to be published soon.

blight. This disease, which kills the tree by attacking and destroying the inner bark, was accidentally introduced into the United States from Asia shortly after 1900, prior to plant quarantine laws. Starting in the New York Zoological Park, it spread rapidly and in 25 years had covered nearly the entire range of the chestnut (nearly all the eastern U. S.). Many deep tap roots remain alive, and today these send sprouts above the ground. The sprouts too die in a few years.

At the next few stations one sees the butternut, black locust, witch-hazel and yellow birch. The most interesting of these stations is the last mentioned. More than just showing off its characteristic bronze-colored bark, this yellow birch has a story to tell. The seed got its start in about 1921 in a crack in a rock. The growing tree has exerted relentless force on the rock, already opening the crack to six inches.

One of the most unusual features on the new trail, discovered by the author, is a white oak, weirdly contorted by ice storms into an animal-like form. The chief park naturalist, C. Kenny Dale, has likened the tree to a member of the deer family and has named it "Mournful Moose." Your imagination may suggest something else.

Evergreens are also seen in places along the trail. Although not common, some represent a type of forest found throughout Virginia thousands of years ago during the Pleistocene period when much of northern U. S. and Canada was covered with ice. Today, because of the warmer climate this far south, the red spruce and balsam fir are found only on the mountain tops. Here conditions are similar to areas farther north where these trees are common. Eastern hemlock, eastern white pine, and Canada yew are also seen on the trail, again giving evidence of the northern climate of Virginia's mountains.

As the trail winds around the northeastern face of Stony Man Mountain a fine view is afforded of Old Rag Mountain. A mass of granite, separated slightly from this typically green-stone section of the Blue Ridge Mountains, Old Rag is one of the finest hiking areas in the park. From Stony Man you can see why Old Rag's rugged isolation makes it a favorite with hikers.

Two little girls listen intently while their mother reads from the guide booklet that "snags along the trail provide food and homes for some park wildlife."

Not too far from this point the trail leads to a point overlooking Nicholson Hollow, where Aaron Nicholson reigned for thirty-five years as "King of Free State Hollow." Many tales are told locally of how Aaron and his family lived in defiance of any intrusion, especially revenuers, in this hollow. A very colorful phase of Shenandoah's past is thus brought to mind.

Near the top of the park more human history is revealed. Copper mining operations carried on here in the 1850's, according to the trail guide, "yielded more blisters than copper." It is thought that copper mining here on Stony Man dates back into Indian times but so far I've found no authentic proof of this.

Now the highest point on the trail is reached. Not far away is the actual summit of Stony Man Mountain, a large pile of rock which reaches 4010 feet above sea level.

(Continued on page 22)

A group of hikers pause to look at "Mournful Moose," a white oak weirdly contorted by ice storms of earlier years. A camera mount is provided at this station.

The trees on Stony Man's forehead are at the mercy of thin soil, a shorter growing season, higher elevations, wind, and ice storms. Fifty years old at the time of the Civil War, they have grown little.

Game Commission Photo by Kesteloo

To provide additional sport for the trout fishermen of the state, the Commission has constructed and experimentally stocked two ponds in the trout section of the Old Dominion.

Commission to Open Two Completed Trout Lakes

By G. W. BULLER
Chief, Fish Division

AT 12:00 noon April 14 two new Commission-constructed lakes will be opened to public fishing—Lake Shenandoah in Rockingham County and Corder Bottom Lake in Scott County. They have a combined area of 104 acres and are stocked experimentally with trout.

Lake Shenandoah is near Massanetta Springs in Rockingham County and contains approximately 39 acres of water, with a 50-foot buffer strip surrounding the inundated area. Land was donated to the Commission by interested people in the area, and the lake was constructed with Commission funds. The lake is being stocked with one-year and two-year-old brook and rainbow trout, of which at least 75 percent will be two-year-olds of very good size.

Public fishing will become legal at noon April 14 and fishing hours will be from one hour before sunrise to one hour after sunset. The creel limit is five (5) trout a day. The lake will be closed to fishing on December 31 at the close of the regular trout season.

Mr. Claude Blosser has been granted the boat concession at Lake Shenandoah and will provide a sufficient number of good boats for fishing.

Under the Commission's policy for state-owned ponds, there will be no swimming or boating permitted other than for fishing. No gasoline outboard motors are permitted on Commission-owned ponds, but electric motors are permissible on boats used for fishing.

The Scott County pond (Corder Bottom lake) has not been named by the Commission but is generally referred to as the Scott County Lake or Pond. It is located in Scott County approximately seven miles northwest of Coeburn on the stream known as Little Stony Creek and has approximately 65 acres inundated. This pond was constructed with funds of the Commission of Game and Inland Fisheries on the property of the Jeffer-

son National Forest, the Forest Service having granted a land-use permit to the Commission. The Forest Service has obtained the right for the boat concession.

On December 18, 1957, Messrs. Quinn, Stras and Buller met with the Forest Service personnel in Roanoke to work out plans for a boat agreement. At this meeting forestry officials indicated they would contact the Commission in the near future and work out plans for the boats. To date, nothing further has been heard from the Forest Service regarding the boat concession.

This lake is also being stocked by the Commission with one and two-year-old rainbow trout, of which 75 percent will be two-year-olds of good size.

The lake will be opened to public fishing on the opening of the trout season at noon April 14 and will close December 31. The hours for fishing will be from one hour before sunrise to one hour after sunset, with a creel limit of five (5) a day. As with all other trout waters in the state, there will be no fishing during the closed season.

At present, Lake Shenandoah and the Scott County Pond are the only two *trout* ponds constructed by the Commission under the policy of their pond construction program.

THE GAME WARDEN

(Continued from page 17)

"Educate rather than agitate," says chief Webb Midyette, "is now getting to be more and more a practice among our men." The term "public relations" is heard more often and is getting more than lip service in its use as a communications tool.

Word, too, should be said about the perplexing problem of dog law enforcement—a situation which has hampered the efficiency of game law work since the formation of the game department 42 years ago. My own feeling is that our game wardens cannot perform the job that is required of them when they must act as dog wardens, in addition to enforcing game and fish laws. A major step toward improvement of this situation would be the complete divorcement of the dog laws from the activities of the Commission. Actually, this is already being done in a few counties, but it needs to be done statewide. With wardens free of the time-consuming task of dog work with all its unpleasantness, efficiency would be improved, more uniform salary schedules could be established, and personnel would be responsible to only *one* agency—the Commission, where full responsibility should rest in the first place.

Yes, indeed, the Virginia game warden has come of age. And, in keeping with his advancement and growing sense of maturity, the hope is that he will soon be called "wildlife protector."

Virginia citizens — and more particularly all true sportsmen—have a right to be proud of their revitalized new wildlife officers. The following poem, entitled "How to Get to Heaven," well illustrates why the game warden deserves the new status he has so well earned.

A man knocked at the heavenly gate
His face was scarred and old;

He stood before the man of fate
For admission to the fold.

What have you done, St. Peter asked,
To gain admission here?

I have been a game warden, sir,
For many and many a year.

The pearly gates swung open wide,
St. Peter touched the bell—

Come and choose your harp, he said,
You have had your share of hell.

FISHING WITH MR. PIPES

(Continued from page 12)

the farther side where, to my indescribable joy, I beheld the loveliest of little cataracts coursing down the mountain to the river. This was truly an answer to prayer and, going over by the old bridge, I "tanked up" with wonderful mountain water. Then I returned to my equipment for a snack, only to find myself in the position that I'd found many a dog many a time after a hard, all-day hunt—simply too tired to eat. Half a sandwich, and I was replete.

Along the way back to the checking station and the car, I tried to apologize to Mr. Pipes for having played out so shamefully. He said: "Now, doctor, I don't want you to think about it at all. I know just how you feel. You take that brother of mine up in the Big Smokies. I've been trout fishing with him a lot but I never have been able to keep up with him. Shades of Pegasus!"

It was on the far bank of the second ford that he graciously bestowed the accolade. Apropos of nothing at all, he turned and said to me, after all my shortcomings, delinquencies and derelictions of the day: "You know, doctor, I'd like to come up here again with you, right soon."

All of which has put me in a profound quandary, which I have been unable to resolve satisfactorily at this writing: Having encountered, survived and escaped this sky-borne river once, would it be good poker to tempt fate further?

Hints on Trout Bait

If you run short of bait while fishing, give the stream bank the once over for possible bait items. By turning over rotten logs a great number of grubs, crickets, cockroaches and other insects can be found. These are all good trout baits and may help to fill your creel with fine fish in a short time.

STONY MAN

(Continued from page 19)

This is the first peak in the Appalachian Mountains south of the Catskills to reach 4000 feet.

About 300 yards farther along, the trail (nearly level at this point) leads to Stony Man's forehead. To the left immediately below you is "Stony Man Camp" founded in 1894 by George Pollock. The camp is known today as Skyland. Over 3000 feet below is the Shenandoah Valley. Luray, with its caverns and Singing Tower, is only six airline miles away. Another point of interest seen from here is New Market Gap in the Massanutten Mountains. Before you lies the theater of Stonewall Jackson's great marches and counter marches. The checkerboard made by the farms on the fertile valley floor reminds the hiker why this was once called "the breadbasket of the Confederacy." On clear days it is possible to see ridge after ridge of the Allegheny Mountains in West Virginia. Such days as this don't come often, however, in the haze-shrouded Blue Ridge Mountains.

Thin soil, a dry southern exposure, wind and ice storms, and the shorter growing season which accompanies higher elevations have joined forces against the forest on Stony Man's crown. At one point on the trail trees were drilled with an increment borer to determine their age. Many, less than a foot in diameter, were 50 years old at the time of the Civil War. In protected areas at lower elevations a white oak 150 years old is at least twice as large.

I have led many groups of hikers past the points of interest mentioned in this article, and have found that unless they are pointed out, the features go unnoticed. There is always an enthusiastic response when these are brought to their attention. Although there are naturalist-conducted trips elsewhere in the park, next summer when you hike up Stony Man, the booklet will be your guide. Happy hiking!

ATTENTION SUPERVISORS, PRINCIPALS, AND TEACHERS!

Act *NOW* to attend one of the short courses covering Virginia's Natural Resources this summer — 1958 — at one of three different colleges:

Virginia Polytechnic Institute, Blacksburg, Virginia (June 16 - July 2)—4½ quarter hours credit.
College of William and Mary, Williamsburg, Virginia (July 28 - Aug. 15)—3 semester hours credit.
Virginia State College, Petersburg, Virginia (June 30 - July 18)—3 semester hours credit.

PURPOSE

The purpose of the Short Course is to provide additional training for teachers in the subject of wise resource use, thereby increasing the effectiveness of conservation and resource-use teaching in the public schools of Virginia. The short course, although primarily for public school teachers, may also be taken by other interested individuals.

SUBJECTS TO BE TAUGHT

Geology—The origin and nature of the earth's crust; the forces at work to alter the crust, to form mineral deposits; the origin and nature of mineral deposits, with examples from Virginia mineral resources; surface water and ground water as they work to break down and modify the earth's crust through weathering and erosion, and also water as it pertains to the needs of man.

Soil—The parts of soil and their importance; how soil contributes to plant growth; the relation of soil to the parent material from which it was formed; the soil profile, what it is and its characteristics; and the program for conserving Virginia's soil and water resources.

Forests—Forest conservation as it relates to the management of timbered areas; use of the forest as a source of raw material for the wood-using industries, for soil stabilization, for watershed protection, and for recreation.

Wildlife—Properties of animal populations, including fish, that are of importance in man's use of this resource; relation of animals to soil, water, and forest, and the relations of these four basic natural resources to man and his welfare.

SCHOLARSHIPS

A limited number of scholarships to cover registration, tuition, meals, lodging and laundry will be available from funds provided by several interested organizations. In order for an application for a scholarship to be considered, it must be received by May 1, 1958.

PLAN NOW

Plan now to enroll in one of the 1958 Conservation Short Courses. Send for application forms—and specify college—by writing to Virginia Resource-Use Education Council, P. O. Box 1612, Richmond, Virginia.

No Light Fine for Dark Hunting

A group of five night hunters in Rockingham County are "beginning to see the light," according to game warden Ronald Wilfong.

The group's automobile was stopped for investigation and in the truck was found a wounded deer which had been paralyzed by a shot in the spine. Wilfong dispatched the wounded animal and then placed the men under arrest.

Judge Graves of the Rockingham County court fined the men a total of $500 and confiscated the gun used in the illegal shooting.

Deformed Antlers

Joe L. Coggin, special services officer in southwest Virginia, recently sent an interesting picture showing a rack of deformed elk antlers.

During Coggin's travels in his field work, he came across this unique set of antlers at the biology department of V.M.I. According to Colonel R. P. Carroll, head of the department, the antlers were brought to V.M.I. by Ranger Clifton of the U. S. Forest Service after the animal had been killed in a fight with another elk in July of 1953.

These elk antlers are quite different from most specimens because of the shape and a pocket or depression on each side. Many of the small tines show teeth marks left by mice and other rodents.

The entire growth is abnormal, perhaps being caused by a head injury when the antlers first began growing. Two areas of exceptional interest are the pockets found at the base of the abnormal tines on each antler.

Elk antlers normally are large and wide spreading.

The Story of the Bears

Three native black bears, being held by the Fur Parade atop Massanutten Mountain near New Market, Virginia, escaped from their cage during January. These animals were being maintained by the Fur Parade for use in the Richmond Zoo when facilities became available.

The bear cubs were found early in 1956 after their mother had been shot by an unknown hunter. At that time they weighed approximately three pounds apiece and were turned over to the Virginia Cooperative Wildlife Research Unit at V.P.I. for experimental work.

During the following 18 months, important information was obtained on growth and health conditions of these animals. A check was still being made every two months at the time they escaped.

These bears now weigh between 200 and 250 pounds and are extremely tame. Since a great amount of money and time has been spent for research on these animals, persons seeing or hearing of a tame bear, or bears, should contact the nearest county game warden.

Warden Retires

William D. Mann, game warden in Orange County for the past 25 years, retired effective March 1 of this year.

"Willie," as he is known to his many friends, plans to retire on his farm and tend his cattle. In addition, he hopes to do a little watch repairing since he is a watchmaker by trade.

Mann says that the last five years have been his busiest because of deer season being open in Orange County during that period.

William D. Mann, game warden in Orange County for the past 25 years, retired from the Commission in March. After a long period of service, Mann plans to enjoy his leisure time.

The many friends Mann has made through the years will certainly miss seeing him in the fields and woods of Orange County.

Warden Named Citizen of the Week

Elon D. Sheetz, game warden in Shenandoah County for the past 28 years, was recently named "Citizen of The Week" by the Shenandoah Herald paper.

The people of Shenandoah County realize that much of Sheetz's time is taken by his warden duties yet he is active in community activities. He is a former president of the Edinburg P.T.A., member of the Hamburg Ruritan Club and the Mt. Calvary Lutheran Church. For several years he was superintendent of the Christian Sunday School at Edinburg.

Sheetz is well known in Shenandoah County and the recognition he received was welcomed by his many friends.

Deer Hunters, Attention!

Don't feel too badly if you missed your deer during the last hunting season. According to a report from Michigan game biologists, only a small percentage of the deer on an area are harvested each year. Chances are the deer were there and you just didn't see them.

To test their theories, the Michigan biologists enclosed a square mile of forest with deer-proof fence and stocked the enclosure with 34 whitetails. Seven average hunters were then placed in this deer stalking Utopia.

It was found that hunters needed an average of 14 hours to bag a deer when both sexes could be taken and 51 hours when bucks only were legal.

The data indicated that hunters were able to shoot only about two percent of the deer on the area during an eight hour day. Deer drives were the most successful but 20 percent of these drives failed to flush the sly animals.

It was concluded that deer are usually more plentiful on an area than is evident to the average hunter and the total deer harvest on an area is small compared to the animals present.

Pennsylvania Fish Commission Given Lake

A recent news item from the Wildlife Management Institute reports that the North American Wildlife Foundation has given a 138-acre lake to the Pennsylvania Fish Commission.

This fine lake, appraised at $700,000 by the Pennsylvania Department of Forests and Waters, will be managed by the Fish Commission for the good of the state's citizens. It will provide boating, picnicking, fishing and other forms of recreation and may be used for fishing research experiments.

IWLA Redesigns Magazine

Outdoor America, the official publication of the Izaak Walton League of America, is now being printed in a new style. With the January issue, editor Frank Gregg switched to a larger size (8¼ x 11¼) and now uses color in the 16 page publication. The publication contains no advertising and it is filled with good, readable conservation material.

"Oh, there it is. For a minute I thought you were kidding."

Experiments In Weed Control May Help Waterfowl

The Bureau of Sport Fisheries and Wildlife, of the U. S. Fish and Wildlife Service, is currently conducting a series of research projects in weed control. The purpose of this research is to find ways of eliminating undesirable marsh plants and to substitute plants which will produce food for migratory waterfowl.

With the fast conversion of wetlands in this country, we now have only 75 million acres left of the original 127 million acres. Approximately nine million of these are considered good waterfowl habitat.

Information obtained from these weed control experiments may lead to methods whereby hundreds of thousands of acres of waste marsh can be converted to useful duck and goose feeding areas.

Jet No Match For Birds

The old saying "strictly for the birds" may hold a lot of meaning, especially for one navy jet pilot. Lt. (j.g.) Jack L. Moss, enroute to Oceana Naval Air Base from Jacksonville, Florida, accidentally flew his Douglas A4D jet bomber into a large flock of birds west of Edenton, North Carolina.

Large numbers of birds filled the intake openings on the jet engines and the cockpit began to fill with smoke. Raising the nose to gain altitude, Moss finally had to "abandon ship" at 2,000 feet.

A navy spokesman indicated that low clouds and prevailing high winds tend to drive flocks of birds to low altitudes, thus creating an operation hazard along airplane flight paths.

How Did It Happen?

A past news release from the New Hampshire Fish and Game Department is a good example of strange events in nature.

One of the many hunters in that state sent in a small animal for identification. This little creature, approximately eight inches in length, was identified by biologists as a pipe fish. This is a member of the family to which belong our familiar sea horses, found only in salt water. Nothing strange about this you say? Well, perhaps not, but this particular pipe fish was found in the tail feathers of a pheasant shot during the hunting season.

Striped Bass

Virginia biologists have continued to assist in the cooperative research program of the Atlantic coast, coordinated by the U. S. Fish and Wildlife Service and the Atlantic States Marine Fisheries Commission, according to the 58th-59th annual report of the Virginia Commission of Fisheries covering the period July 1, 1955-July 1, 1957. Most of the participating states receive funds to finance their share of the work from the proceeds of excise taxes on fishing tackle, under the provisions of the Dingell-Johnson Act, but Virginia's share of these funds is committed to research on fresh-water sport fisheries.

In the spring of 1957, a concerted effort was made to test the feasibility of tagging large numbers of striped bass. The entire staff of the migratory fish investigations, with some help from other staff members, spent several weeks on this project. Tags were attached to 1425 fish, and by the end of June, 252 had been recovered, mostly from Virginia waters. Out-of-state returns included three from Maryland and one each from New Jersey, Rhode Island, and Maine.

New Booklet By Swift

The National Wildlife Federation recently published a new booklet entitled *"The Glory Trail."* This 50 page publication was written by the organization's executive director, Ernest Swift, and covers America's early history in relation to the exploitation of our natural resources.

Swift has already received many comments on this thought provoking article and says that it was written "to arouse an intellectual curiosity for resource history."

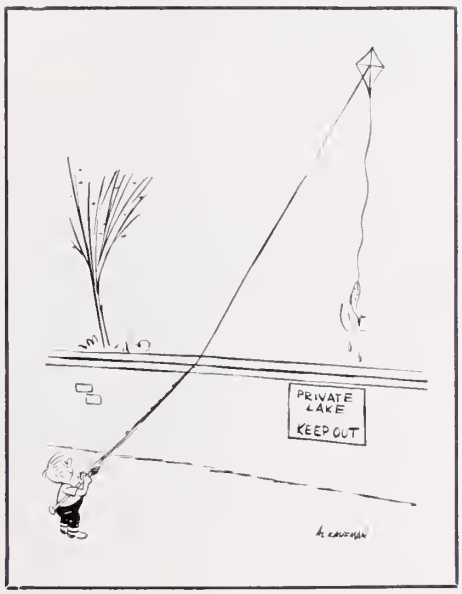
Public Access Road Survey

The Sport Fishing Institute recently completed a survey to determine the number of states engaged in public access road development. The results are rather gratifying and show that 29 states are currently engaged in this type program.

Through the acquisition and construction of these roads, approximately 470,555 acres of natural and artificial lakes are now available for public recreation. At least 5,208 miles of small streams and rivers have also been opened to the sportsmen. The total cost of these developments amounts to over nine million dollars, with part of the expense being paid by federal funds from the Dingell-Johnson program.

If present land and construction costs would remain the same, it would require about 70 times as much money as already spent to assure a minimum number of access roads for our future fishermen. This would be a staggering sum of 640 million dollars.

It appears that the best solution is that of buying access roads before the prices of land and construction go higher.



Geese-Powered Weed Pullers

According to the *Extension Service News,* a publication from Virginia Polytechnic Institute, domestic geese are being utilized for weeding nursery stock in Virginia.

The diet of these birds consists of grass and weeds and large amounts of these materials are eaten during the course of a day.

Nurserymen use a temporary fence to confine their "fowl weeding crews" and move it as a block of nursery stock is weeded.

It was found that geese do no damage to nursery stock and remove all undesirable vegetation with the exception of a few large, rank weeds. These, of course, must be removed by human power.

The Sport Fisheries

The annual report of the Virginia Commission of Fisheries for the period ending July 1, 1957, points out that sportfishing in tidewater Virginia and in the ocean beyond the Chesapeake Bay entrance has grown remarkably in popularity since the war. New methods of fishing and the exploration of new grounds are continually bringing neglected species into importance as sport fishes. Sport fishing for shad is now popular in many tidewater streams in early spring, cobia and channel bass are drawing many sportsmen to the Bay, a new fishery for marlin is developing in the ocean off Virginia's shores, and possibilities of finding tarpon in the waterways of the seaside of the Eastern Shore are being investigated.

The sport fishing survey, which began in 1954, has concentrated up to now on the bottom fisheries, which take primarily croakers, spot, gray sea trout, and flounders. The first complete year of observations was 1955, when it was estimated that sport fishermen took about 1,768,000 pounds of croakers, 287,000 pounds of spot, 158,000 pounds of gray sea trout, and 50,000 pounds of flounder. In 1956, the croaker, spot and flounder catches increased to about 2,414,000 pounds, 386,000 pounds, and 60,000 pounds respectively, and the trout catch dropped to 127,000 pounds.

An interesting sidelight on the sport fishing investigations is the discovery that the catching rate of croakers per boat does not increase as the number of fishermen in the boat increases. This means that, assuming he knows where the best croaker fishing grounds are, a fisherman will be most successful if he goes out alone. If there are two fishermen in the boat, each will only catch half as many, and so on. This information should be useful to the operators of party boats, for their reputations and their incomes may be related to the number of people they take along on a trip.

Wildlife Questions and Answers

Edited by Dan E. Cantner

***Ques.:* I read that last month's National Wildlife Week in Virginia was sponsored by the National Wildlife Federation. Could you give me some details on the organization?**

Ans.: The National Wildlife Federation is the largest non-government organization in the world devoted solely to the conservation of natural resources. It was organized in 1936 and the first president was a famous newspaper cartoonist and one-time chief of the U. S. Biological Survey. This man was J. N. "Ding" Darling and to him goes a great deal of credit for organizing the federation. It was chiefly through his efforts that the organization has been successful.

Operating expenses are financed through the sale of wildlife conservation stamps which are distributed each year throughout the United States.

The present executive director of the federation is Ernest F. Swift, a man who started in conservation work 32 years ago as a game warden.

***Ques.:* How many different kinds of four footed predators do we have in this country?**

Ans.: On the North American continent we have five families of Carnivores. These families include the cats, the bears, the dogs, the raccoons and the minks.

***Ques.:* Are weasels as destructive as most people believe them to be?**

Ans.: Although weasels will occasionally stray into a chicken lot, they destroy a great number of rats and mice each year. Around a farm they normally do a great amount of good in controlling these small rodents.

***Ques.:* Could you please give me a recipe for making carp bait?**

Ans.: The most widely used carp bait is probably the doughball. The method for preparing this tid-bit varies with each fisherman, but the basic ingredients are the same. Use equal parts of flour and corn meal mixed together with sufficient water to give a thick dough. Drop the mixture into boiling water for approximately five minutes or until cooked through. Many anglers add various items to give additional flavor including anise, vanilla, sugar and salt.

***Ques.:* Are the teeth of flesh eating animals different from those that live on vegetable matter?**

Ans.: Yes. Animals have three main divisions or types of teeth—incisors, canines and molars. These teeth in the carnivores or flesh eaters are well adapted to cutting and tearing flesh and bones. The canines are usually long and sharp and are used in killing. Sharp edges are present on the incisors for cutting into flesh. The back teeth are used for grinding and crushing and a few will have a distinct cutting edge which is characteristic of the carnivores.

***Ques.:* Does the Commission have maps available on the National forests in Virginia?**

Ans.: Yes. The Game Commission recently published a map showing the two national forests in our state. The map shows the location of the forest headquarters, ranger district headquarters, game management units, fish hatcheries, lakes, federal highways and the county seats. There is additional information on license requirements, camping and trout streams on the two areas. Copies of this map can be obtained by writing to your Game Commission, Box 1642, Richmond, Virginia; George Washington National Forest, Supervisor's Headquarters, Federal Building, Harrisonburg, Virginia or Jefferson National Forest, Supervisor's Headquarters, Federal Building, Roanoke, Virginia.

***Ques.:* What is the largest beaver on record in Virginia and what is the average weight of this animal in our state?**

Ans.: A beaver, which weighed 67 pounds, was supposedly trapped in the James River around 1901. This is a large specimen for our state. The average weight of this animal in the Old Dominion will perhaps be around 35 to 40 pounds.

***Ques.:* Where do channel catfish usually deposit their eggs during the spawning season?**

Ans.: This species utilizes areas or locations which are rather well protected. Eggs can usually be found in hollow logs, under rock ledges hanging down into the water and in the shelter of undercut stream banks.

***Ques.:* Do we have a large number of caves in Virginia?**

Ans.: An answer to this question depends upon the interpretation of the term "large number." The National Speleological Society is cooperating with the Virginia Division of Geology in a survey to locate and explore as many caves as possible. To date in the Old Dominion, over 1,200 caves have been recorded. This probably represents a small number of the total caves in our state.

***Ques.:* In one of your recent news releases it explained that waterfowl populations in Virginia were down approximately 45 percent over last year. How does this figure compare to the entire Atlantic Flyway?**

Ans.: The latest figures available show that in the entire Atlantic Flyway waterfowl numbers were down 22 percent over the same period in 1957.

***Ques.:* What are the main food items of the common snapping turtle?**

Ans.: The diet of the snapping turtle is varied and consists chiefly of insects, crayfish, carrion and plants. The turtle may consume a large portion of fish, or a small amount, depending upon the conditions where it is living. These turtles do a great amount of good in a pond by killing diseased or weakened fish and by removing dead fish and other animals. They should not be exterminated but often their numbers should be controlled.

***Ques.:* Has the jack rabbit ever been introduced in the state of Virginia?**

Ans.: Apparently this species of rabbit has been released by various people in our state. However, it has never become established in Virginia nor in any state east of the Mississippi to our knowledge. The cover conditions in Virginia are not suitable for this species.

***Ques.:* Is it true that Spanish moss can be found in certain areas in Virginia?**

Ans.: Yes. Although there is no great abundance of this moss in our state, small amounts can be found in the Virginia Beach area, in the Dismal Swamp and in the Blackwater Swamp near Suffolk.

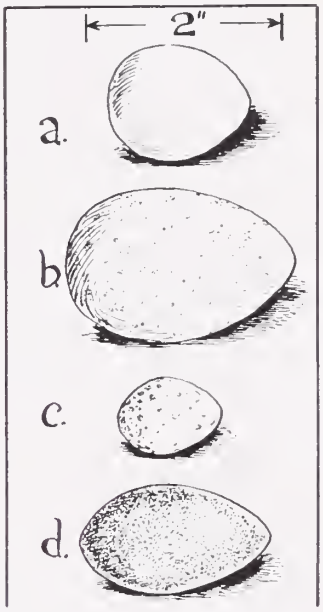
***Ques.:* How many trees were planted in the United States during 1957?**

Ans.: The completed figures on reforestation in our country last year show that approximately one billion seedlings were planted.

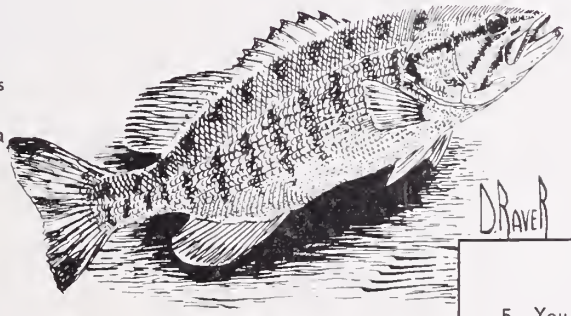
What is Your WILDLIFE "IQ"?

1. A muskrat can stay submerged (and live) a maximum of about:
   (a) 4 minutes
   (b) 1 minute
   (c) 29 minutes

2. Named for an obvious body feature, this graceful duck is a ..... .



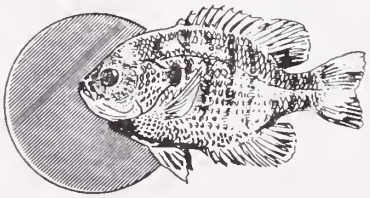
4. Which egg belongs to a wild turkey? .....



3. You would expect this fish to spawn on:
   (a) Brush or vegetation
   (b) Silt or mud
   (c) Coarse sand or gravel

5. You can help wildlife by:
   (a) Obeying fish and game laws.
   (b) Actively supporting your game and fish commission.
   (c) Planting food and cover plants.

6. If you find young wild animals in the woods, it is a good idea to pick them up and take them home. True ..... False .....



7. This is a:
   (a) Crappie
   (b) Bluegill
   (c) Walleye

8. These tracks were left by:
   (a) An opossum
   (b) A mink
   (c) A bobcat

Answers: 1. (a) 2. Pintail 3. (c) It's a smallmouth bass. 4. (b) 5. All of them. 6. False 7. (b) 8. (a)

1958
SUBSCRIPTION DRIVE